DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026519
Date Inspected: 13-Oct-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	John Pagliero and Bernie Docena			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS Tower

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 10W-PP92-W4-#1 & 3 lifting lug hole infill plate to top deck plate inside – ABF welder Mike Jimenez was noted back gouging the bottom of the welded lifting lug holes using carbon air arc gouging. After the completion of the arc gouging, the welder has smoothly ground the groove of the gouged butt joint then called ABF QC Bernie Docena to perform Magnetic Particle Testing (MT) on the completely gouged and ground butt joint. QC has found no relevant indications during the test.

At OBG 10W-PP92-W4-# 3 lifting lug hole infill plate to top deck plate inside - ABF welder Mike Jimenez was observed performing 4G SMAW back welding fill pass on the infill plate to top deck plate butt joint. The welder was noted using 1/8” diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1110A. During welding, ABF QC Bernie Docena was noted monitoring the welder’s welding parameters. During the shift, fill pass welding on this location was ongoing when the welder was pulled out and went for another assignment.

At OBG8E-PP70.5-E5 NE deck access hole infill plate to top deck plate outside, ABF QC John Pagliero was observed performing Ultrasonic Testing (UT) on the welded deck access hole butt joint. After the completion of the UT, QC has found the joint acceptable.

At OBG 12E/13E edge plate 'F' outside, QA randomly observed ABF/JV qualified welder Jorge Lopez perform root pass welding on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3. The joint being welded has a single V-groove butt joint with steel backing bar. ABF Quality Control (QC) Fred Von Hoff was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 250 amperes, 22.5 volts which appears in conformance to the contract requirements. At the end of the shift, FCAW root pass welding was still continuing and should remain tomorrow.

Prior welding, fellow QA Craig Hager has verified the fit up alignment with noted 2mm to 6mm offset from top (110 mm long) and 2mm to 5mm offset to the bottom (220mm long). The backing bar gap to the edge plate was originally measured 2mm to 9mm (from bottom 580mm long) but this was fixed by pushing the bull pins. According to ABF QC Supervisor Bonifacio Daquinag, the misalignment on the top and bottom will be mapped and recorded and then submitted to ABF for review.

At OBG 12E/13E side plate E inside, ABF QC Jesse Cayabyab and this QA performed a joint inspection/verification on the fit up alignment of the splice butt joint. After the completion of the QA/QC joint inspection/verification, it was found out that majority of the splice butt joint alignment was measured 0mm to 2mm from bottom to top except a portion of the top wherein it was measured 4mm offset from Y=0 to 100mm; 3mm offset from Y=101mm to 140mm and 2mm offset from Y=141mm to 250mm. According to ABF QC Supervisor Bonifacio Daquinag, the offset readings will be mapped and recorded and submitted to ABF for review.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT of the Complete Joint Penetration (CJP) welding of two (2) lifting lug hole infill plate to top deck plate butt joints. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the weld and the QC inspection complied with the contract documents.

1. OBG 10W-PP92-W4-#2 lifting lug hole inside - QA VT/MT verified
2. OBG 10W-PP92-W4-#4 lifting lug hole inside - QA VT/MT verified

WELDING INSPECTION REPORT

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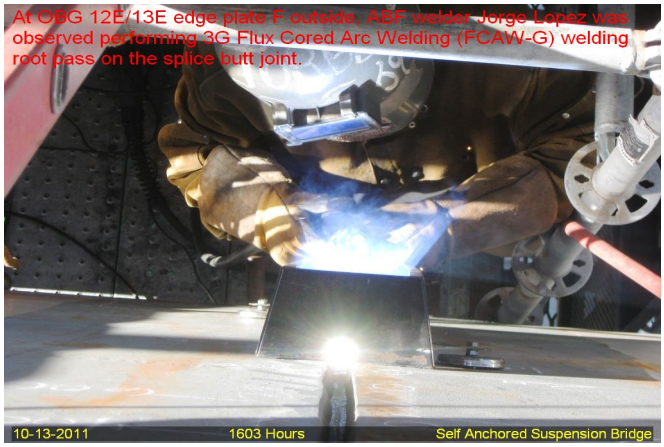

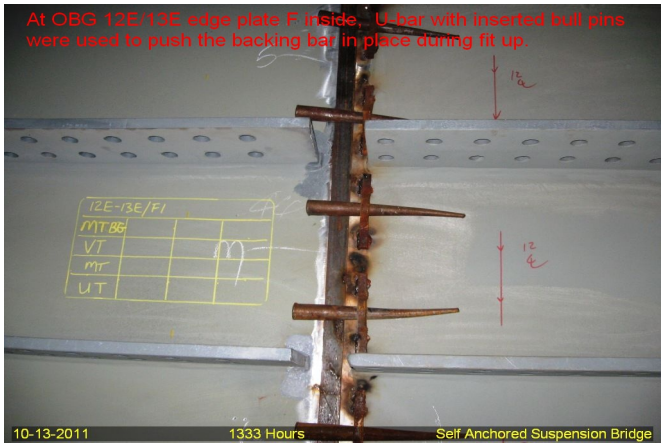

Summary of Conversations:

No significant conversation ocurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer